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APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO	CONFIRMATION NO
09 586,202	06 02 2000	David E. Wenstrup	5021	6108

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MILLIKEN & COMPANY  
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EXAMINER

KUMAR, PREETI

ART UNIT	PAPER NUMBER
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1751

DATE MAILED 10 24 2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/586.202

Applicant(s)

WENSTRUP, DAVID E.

Examiner

Preeti Kumar

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other

**DETAILED ACTION**

***Response to Amendment***

1. Claims 1-16 are pending.
2. Submission of abstract is noted.
3. The rejection of claims 1, 2, 3, 5, 6, 8, 9, 10, 11, 13, 14 and 16 under 35 U.S.C. 103(a) as being unpatentable over DeVinney et al. (US 3,775,054) is withdrawn upon reconsideration of prior art and applicant's arguments.
4. The rejection of claims 1, 2, 3, 5, 6, 8, 9, 10, 11, 13, 14 and 16 under 35 U.S.C. 103(a) as being unpatentable over Brodmann et al. (US 4,045,601) is maintained for the reasons of record and further explained below.
5. The rejection of claims 4, 7, 12, and 15 under 35 U.S.C. 103(a) as being unpatentable over Brodmann et al. as applied to claims 1-3, 5, 6, 8-11, 13, 14, and 16, and further in view of Freeman (US 4,902,787) is maintained for the reasons of record and further explained below.

***Response to Arguments***

6. Applicant's arguments filed in paper #6 on July 29, 2002, have been fully considered but they are not persuasive. Applicants urge that Brodmann et al. disclose a process for exclusively dyeing woven glass fabric comprised of glass fibers and do not teach or suggest a two step process for dyeing a polymeric material. However, contrary to applicant's arguments, Brodmann et al. teach soluble synthetic resins suitable for the process of this invention include polyacrylics, polyurethanes, polyesters, and polysilicones, with polyacrylics and polyurethanes being particularly preferred. Please

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see col.3, ln.1-5. Also, Brodmann et al. do teach a two-step process. Brodmann et al. teach a multi-step process for treatment of the fiber glass fabric, first, by impregnation with a liquid pre-finishing composition and then by impregnation with a liquid finishing composition. See col. 2, ln.1-8. Brodmann et al. also teach that the liquid pre-finishing composition serves to activate the surface of the glass fiber fabric and makes it receptive to the finishing treatment required in the remainder of the process. See col.3, ln.31-34. In an embodiment, Brodmann et al. disclose the inclusion of a pigment dye in the pre-finishing composition. See col.4, ln.5-15.

Applicant's also urge that Brodmann et al. disclose a resin finish or coating which has been impregnated on a woven glass fabric in order to achieve the desired level of color on the fabric. The examiner asserts that the coating process as recited by Brodmann et al. is encompassed by the material limitations of the instant claims which recite externally dyeing said substrate to form a final color shade on said substrate.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a method comprising the steps of impregnating a colorant into a polymeric material, assembling a substrate from the polymeric material, and externally dyeing said substrate to form a final color shade on the substrate, and the other requisite components of the composition in the specific proportions as recited by the instant claims, with a reasonable expectation of success, because the broad teachings of Brodmann et al. suggest a method comprising the steps of impregnating a colorant into a polymeric material, assembling a substrate from the polymeric material, and externally dyeing said substrate to form a final color shade on the substrate, and

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the other requisite components of the composition in the specific proportions as recited by the instant claims.

Applicant's also urge that Brodmann et al. in view of Freeman fail to recognize or solve the problems associated with previous methods for imparting color and UV stability to fabrics. However, contrary to applicant's arguments, the Freeman specifically cite one of the most important considerations in determining the suitability of dyestuffs for specific applications is lightfastness. Dyes tend to undergo photodegradation upon exposure to light, especially light in the ultraviolet spectrum, resulting in fading of the dyed textile fibers. Automobile upholstery fabrics, for example, are used in perhaps one of the most severe and demanding environments for dyestuffs. Automobile interiors may be exposed to direct sunlight over extended periods of time, and may encounter extreme high temperatures and humidities. Consequently, automobile upholstery fabrics require optimum lightfastness. Most of the disperse dyestuffs presently available do not provide the high level of lightfastness demanded in automotive applications, especially where relatively dark colors are required. Efforts to improve the lightfastness of disperse dyed fibers have been directed primarily to the use of photostabilizer additives, such as UV absorber compounds. The most commonly used photostabilizers include benzophenones, benzotriazoles, and hindered amines. These compounds are typically applied to the fiber during the dyeing process by mixing the photostabilizer compound in the dyebath with the dyestuffs and with other conventional dyebath additives. The photostabilizer compound is adsorbed into the fibers along with the dyestuff molecules and serves to protect the dyestuff molecules

from the destructive effects of the energy from absorbed UV light. The mechanisms involved in the photostabilization of a disperse dyestuff molecule by photostabilizer compounds have been extensively studied and reported in the literature and will not be treated here. Suffice it to say that in the photostabilization mechanism, it is important that the photostabilizer compound be in close proximity to the chromophoric group of the dyestuff in order that it can serve to protect the dyestuff molecule from photodegradation. See col.1, ln.20-35.

Hence, the combination of Brodmann et al. and Freeman is proper because Freeman suggest a method of impregnating a photostabilizer moiety into the dyestuffs structure to protect the dyestuff molecules from the destructive effects of the energy from absorbed UV light and further, both Freeman and Brodmann et al. disclose a need for UV stability and lightfastness of fabric in general.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

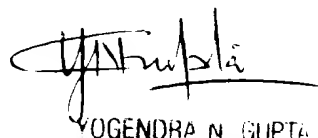
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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Preeti Kumar whose telephone number is 703-305-0178. The examiner can normally be reached on M-F 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on 703-308-4708. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-872-9309.



YOGENDRA N. GUPTA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700

Preeti Kumar  
Examiner  
Art Unit 1751

PK  
October 17, 2002